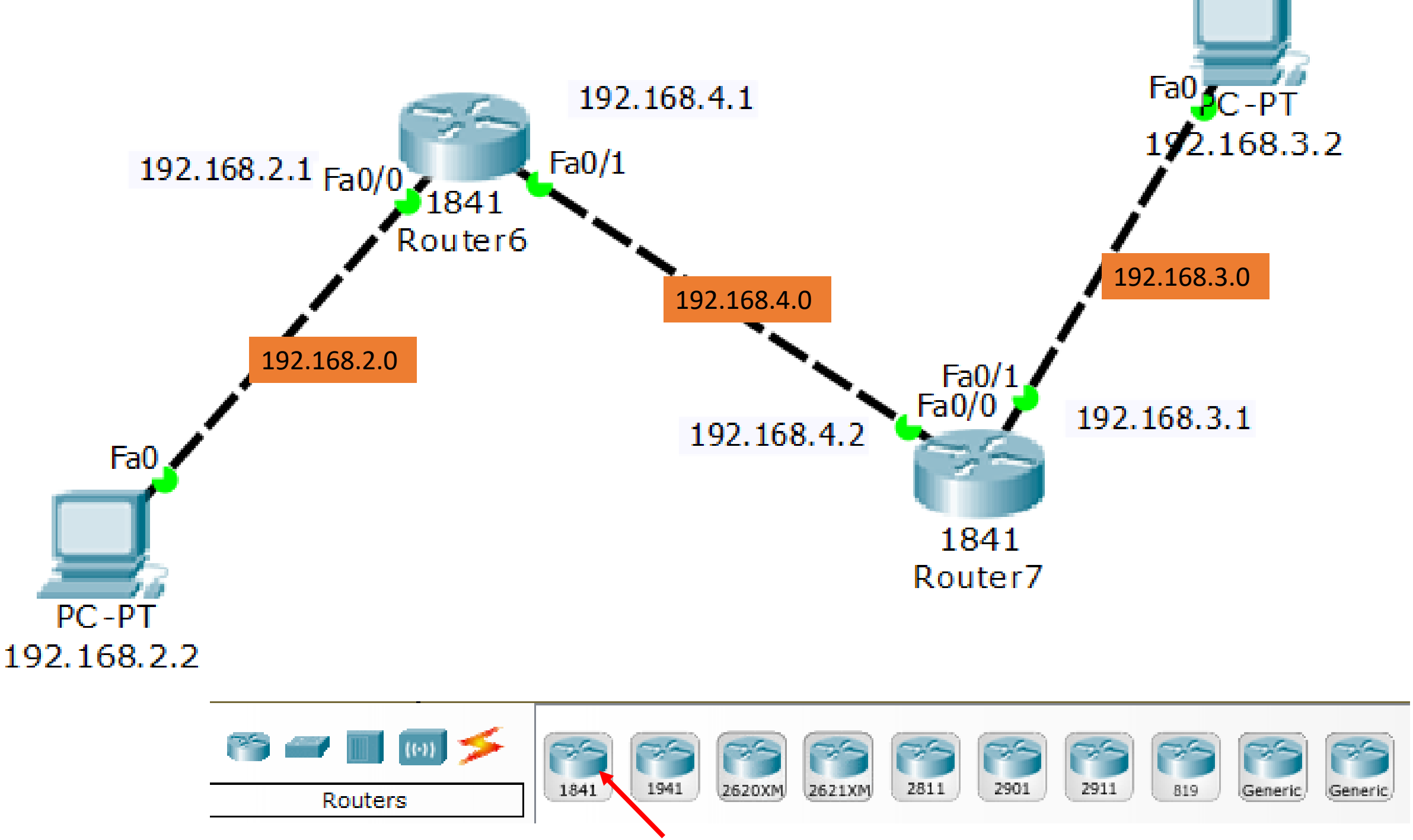
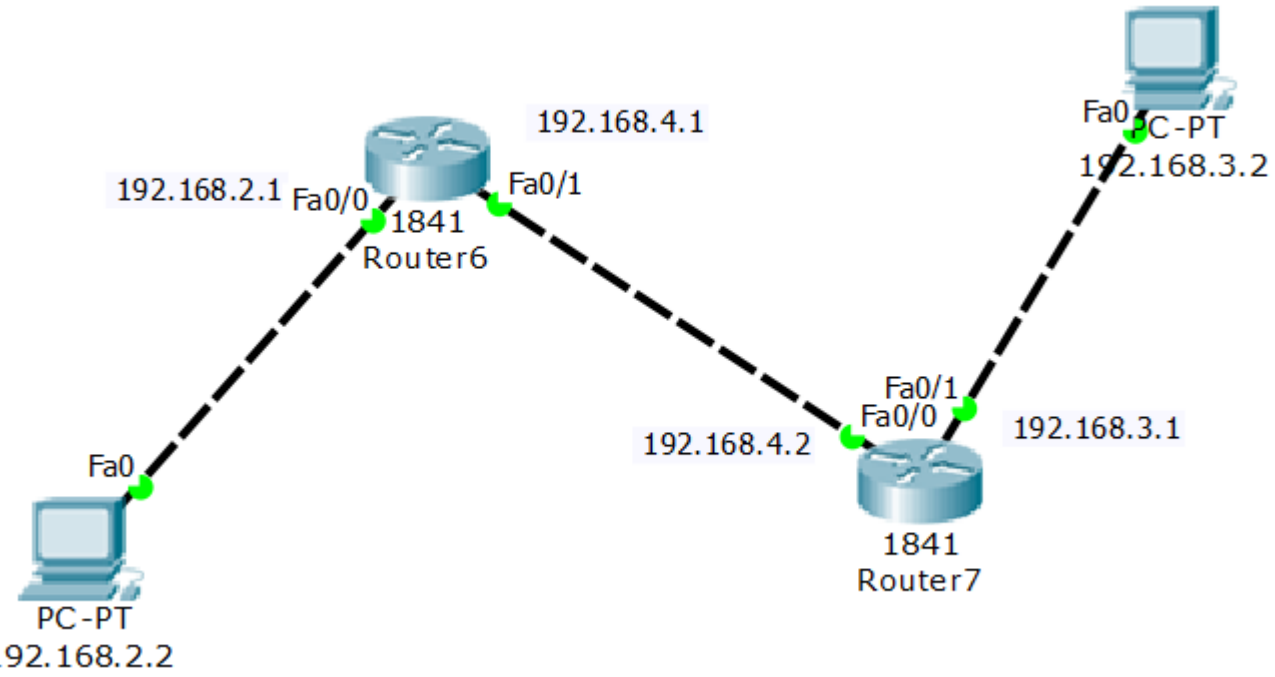
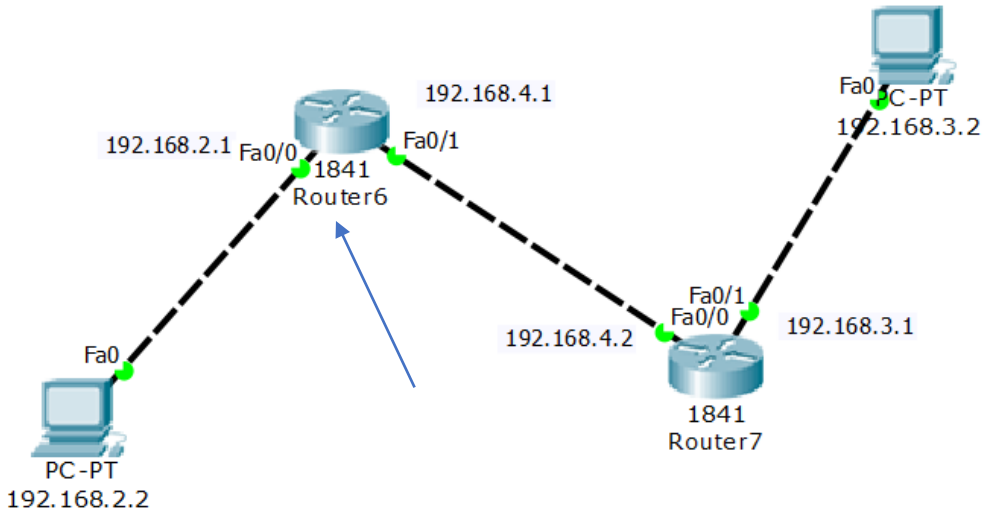
Expt. 2.
Connection two routers and incorporation of host between them


192.168.4.1
192.168.2.1
Fa0/0
1841
Router6
Fa0/1
192.168.2.0
192.168.4.0
192.168.3.0
Fa0
PC-PT
192.168.2.2
192.168.4.2
Fa0/1
Fa0/0
192.168.3.1
1841
Router7
Fa0
PC-PT
192.168.3.2
Routers
1841
1941
2620XM
2621XM
2811
2901
2911
819
Generic
Generic



IP Address	192.168.2.2
Subnet Mask	255.255.255.0
Default Gateway	192.168.2.1
DNS Server	

IP Address	192.168.3.2
Subnet Mask	255.255.255.0
Default Gateway	192.168.3.1



Physical | Config | CLI

GLOBAL
Settings
Algorithm Settings
ROUTING
Static
RIP
SWITCHING
VLAN Database
INTERFACE
FastEthernet0/0
FastEthernet0/1

FastEthernet0/0

Port Status: On
Bandwidth: 100 Mbps / 10 Mbps / Auto
Duplex: Half Duplex / Full Duplex / Auto
MAC Address: 0001.434A.6301

IP Configuration
IP Address: 192.168.2.1
Subnet Mask: 255.255.255.0

Tx Ring Limit: 10

Physical | Config | CLI

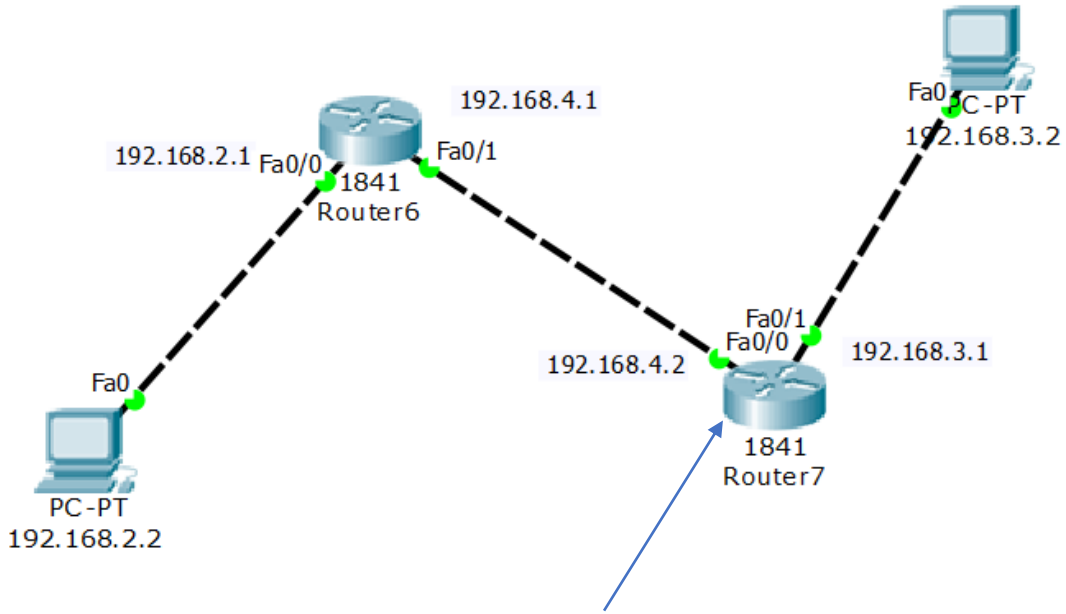
GLOBAL
Settings
Algorithm Settings
ROUTING
Static
RIP
SWITCHING
VLAN Database
INTERFACE
FastEthernet0/0
FastEthernet0/1

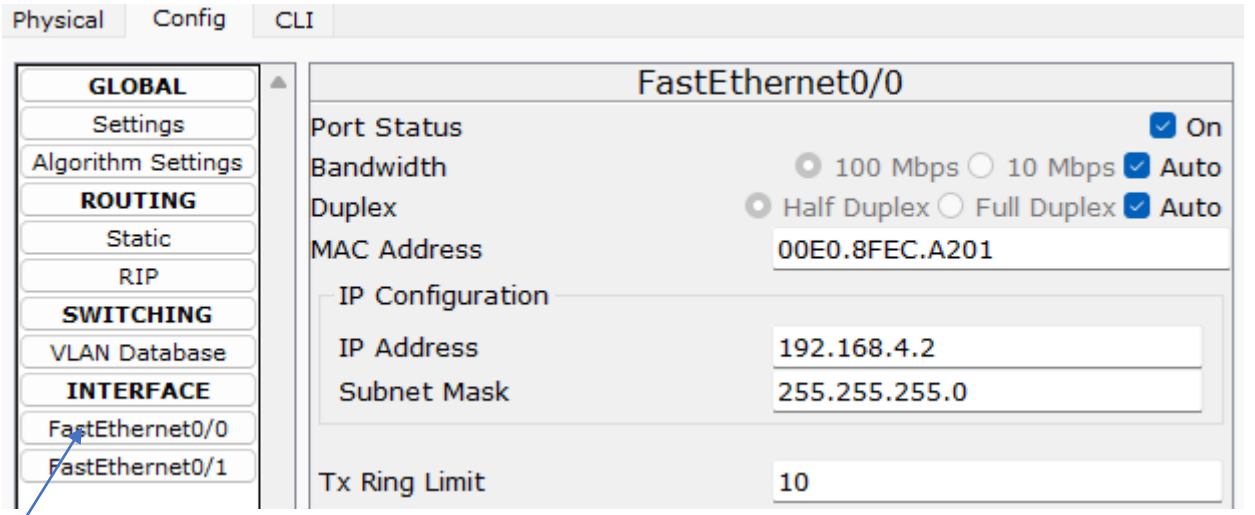
FastEthernet0/1

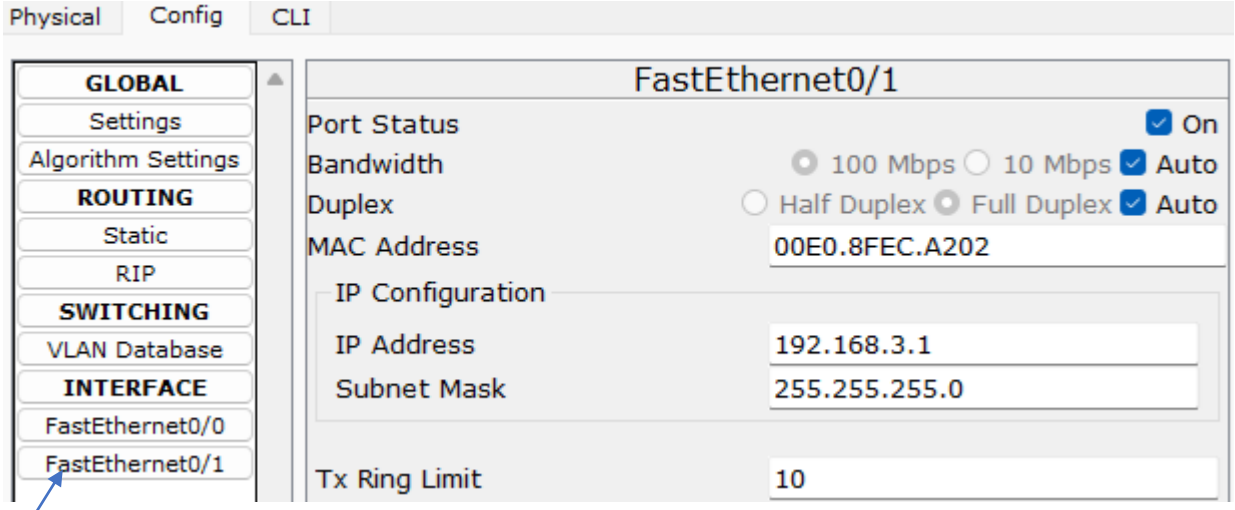
Port Status: On
Bandwidth: 100 Mbps / 10 Mbps / Auto
Duplex: Half Duplex / Full Duplex / Auto
MAC Address: 0001.434A.6302

IP Configuration
IP Address: 192.168.4.1
Subnet Mask: 255.255.255.0

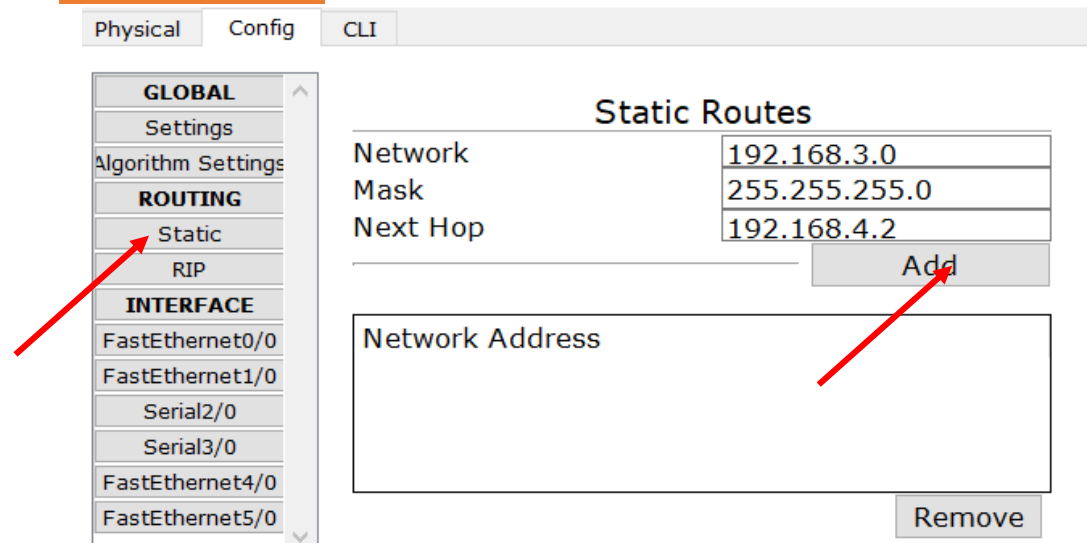
Tx Ring Limit: 10

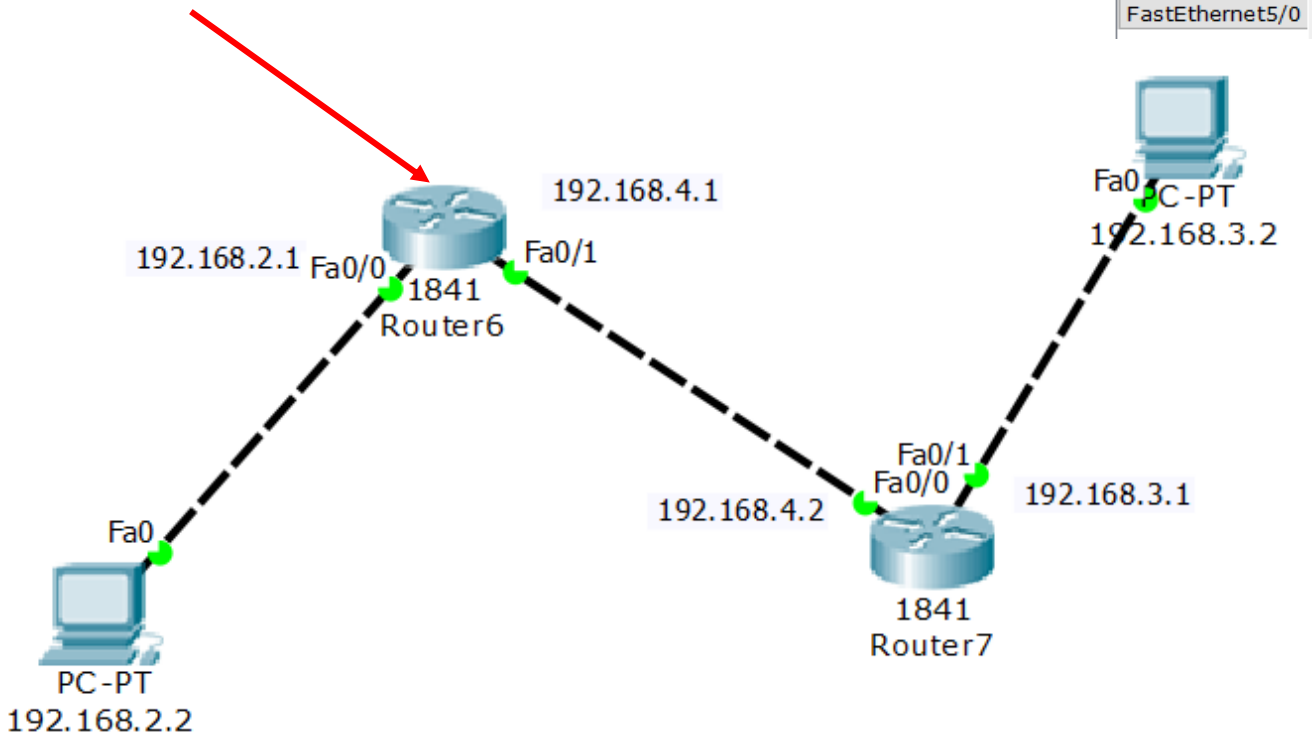

192.168.4.1
192.168.2.1
Fa0/0
Fa0/1
1841
Router6
Fa0
PC-PT
192.168.3.2
Fa0/1
Fa0/0
192.168.4.2
192.168.3.1
Fa0
1841
Router7
PC-PT
192.168.2.2

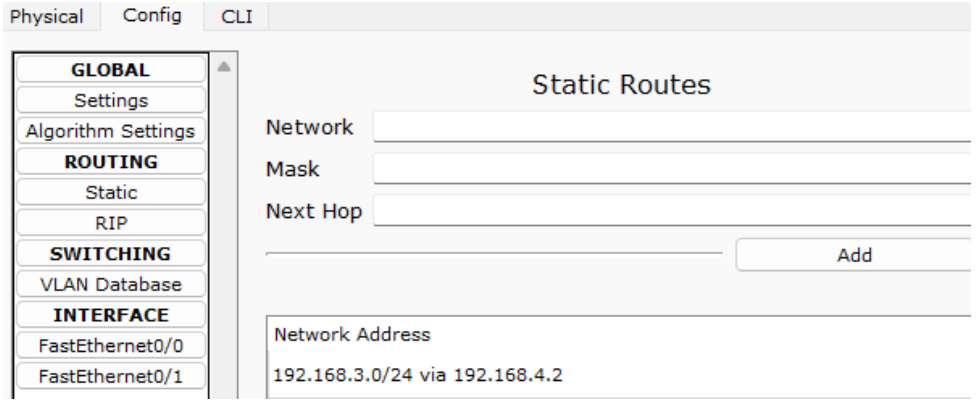

Physical
Config
CLI
GLOBAL
Settings
Algorithm Settings
ROUTING
Static
RIP
SWITCHING
VLAN Database
INTERFACE
FastEthernet0/0
FastEthernet0/1
FastEthernet0/0
Port Status
On
Bandwidth
100 Mbps
10 Mbps
Auto
Duplex
Half Duplex
Full Duplex
Auto
MAC Address
00E0.8FEC.A201
IP Configuration
IP Address
192.168.4.2
Subnet Mask
255.255.255.0
Tx Ring Limit
10

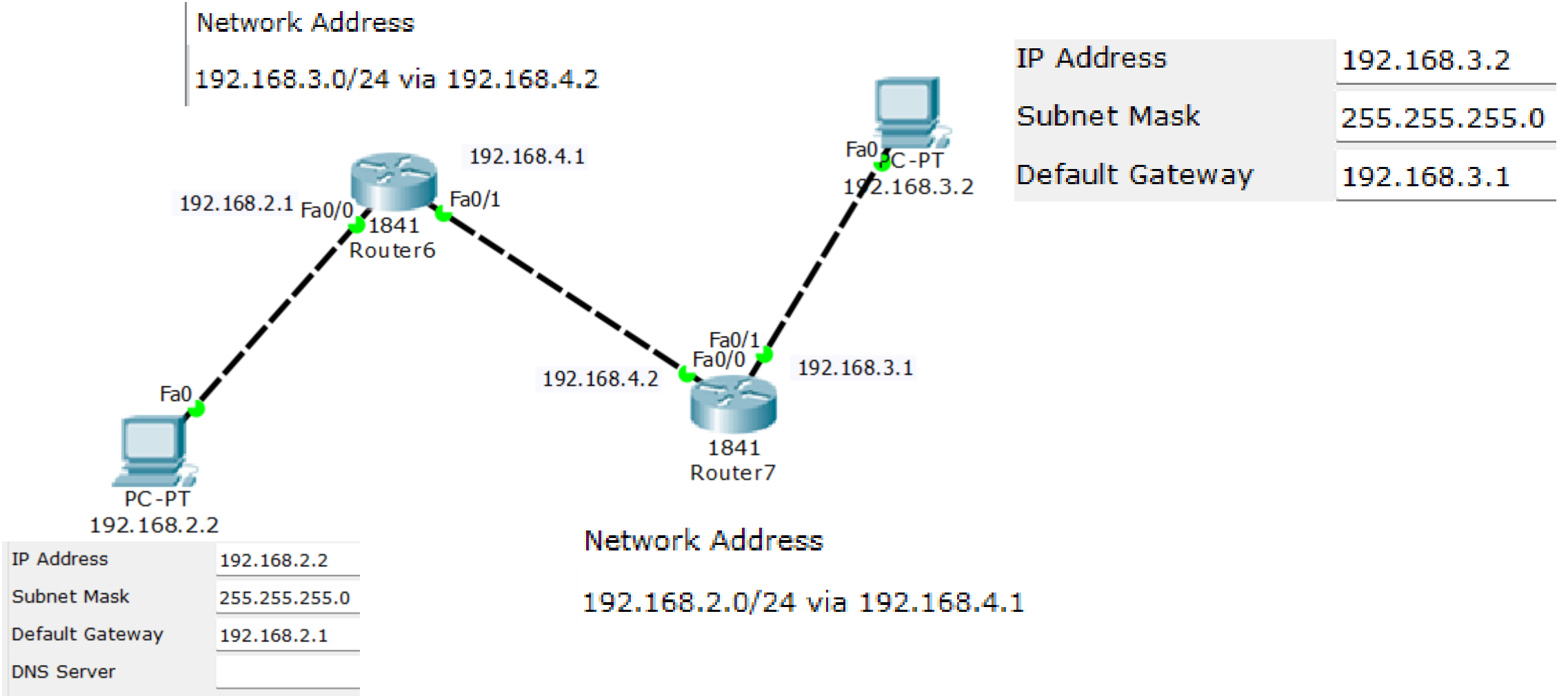

Physical
Config
CLI
GLOBAL
Settings
Algorithm Settings
ROUTING
Static
RIP
SWITCHING
VLAN Database
INTERFACE
FastEthernet0/0
FastEthernet0/1
FastEthernet0/1
Port Status
On
Bandwidth
100 Mbps
10 Mbps
Auto
Duplex
Half Duplex
Full Duplex
Auto
MAC Address
00E0.8FEC.A202
IP Configuration
IP Address
192.168.3.1
Subnet Mask
255.255.255.0
Tx Ring Limit
10

Router-6

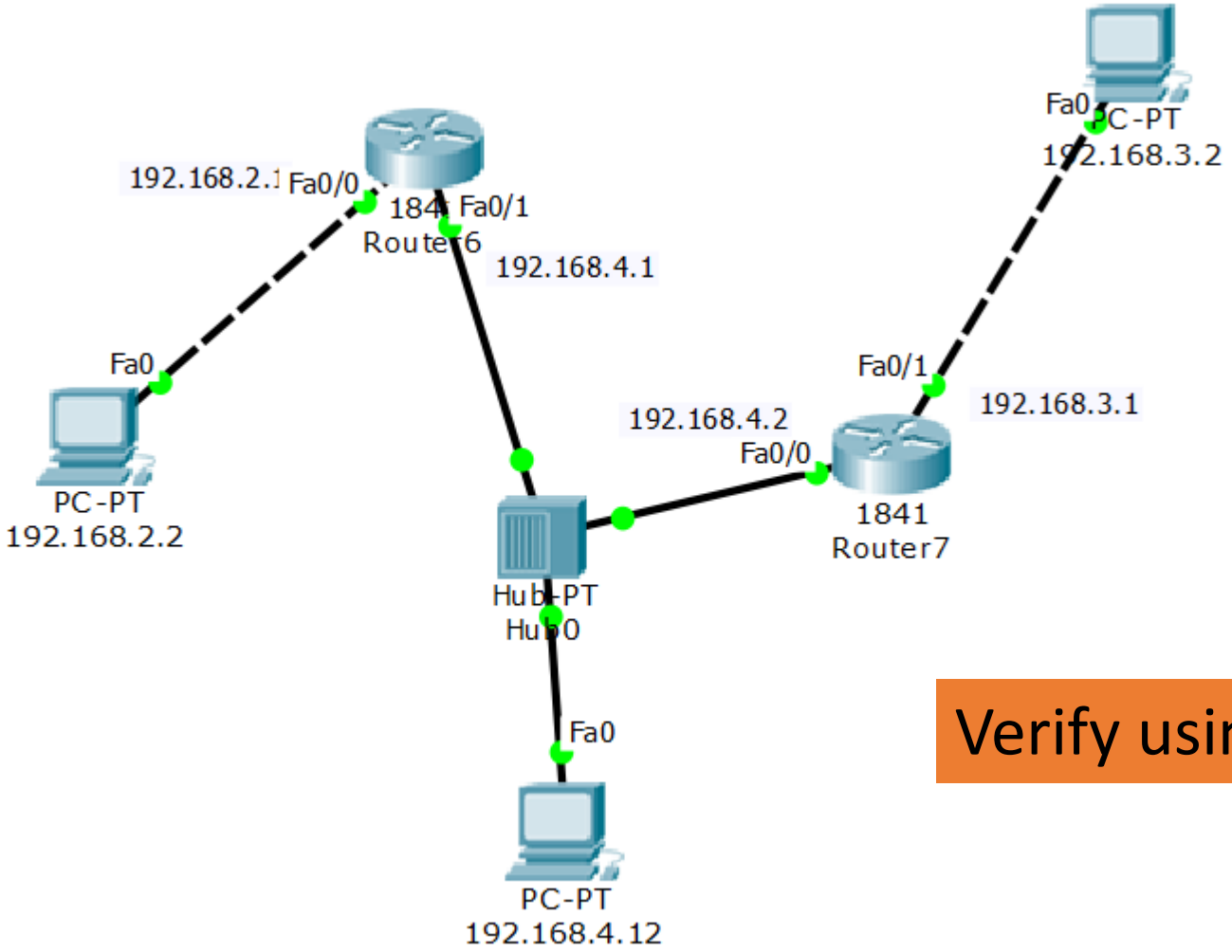

Physical
Config
CLI
GLOBAL
Settings
Algorithm Settings
ROUTING
Static
RIP
INTERFACE
FastEthernet0/0
FastEthernet1/0
Serial2/0
Serial3/0
FastEthernet4/0
FastEthernet5/0
Static Routes
Network
192.168.3.0
Mask
255.255.255.0
Next Hop
192.168.4.2
Add
Network Address
Remove


192.168.4.1
192.168.2.1
Fa0/0
Fa0/1
1841
Router6
Fa0
PC-PT
192.168.3.2
Fa0/1
Fa0/0
192.168.4.2
192.168.3.1
Fa0
1841
Router7
PC-PT
192.168.2.2


Physical
Config
CLI
GLOBAL
Settings
Algorithm Settings
ROUTING
Static
RIP
SWITCHING
VLAN Database
INTERFACE
FastEthernet0/0
FastEthernet0/1
Static Routes
Network
Mask
Next Hop
Add
Network Address
192.168.3.0/24 via 192.168.4.2



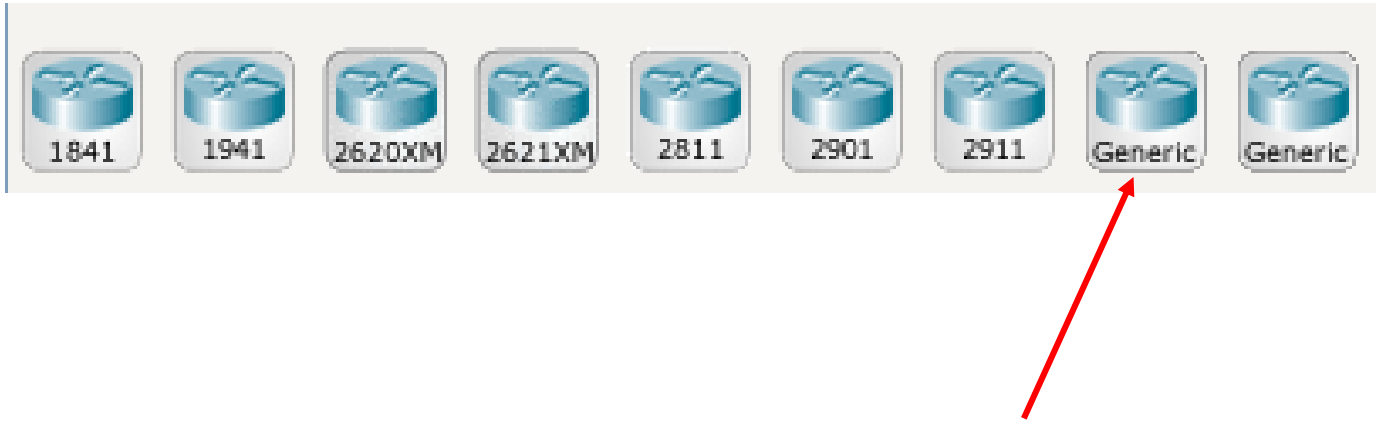
Verify using ping and ICMP packet simulation

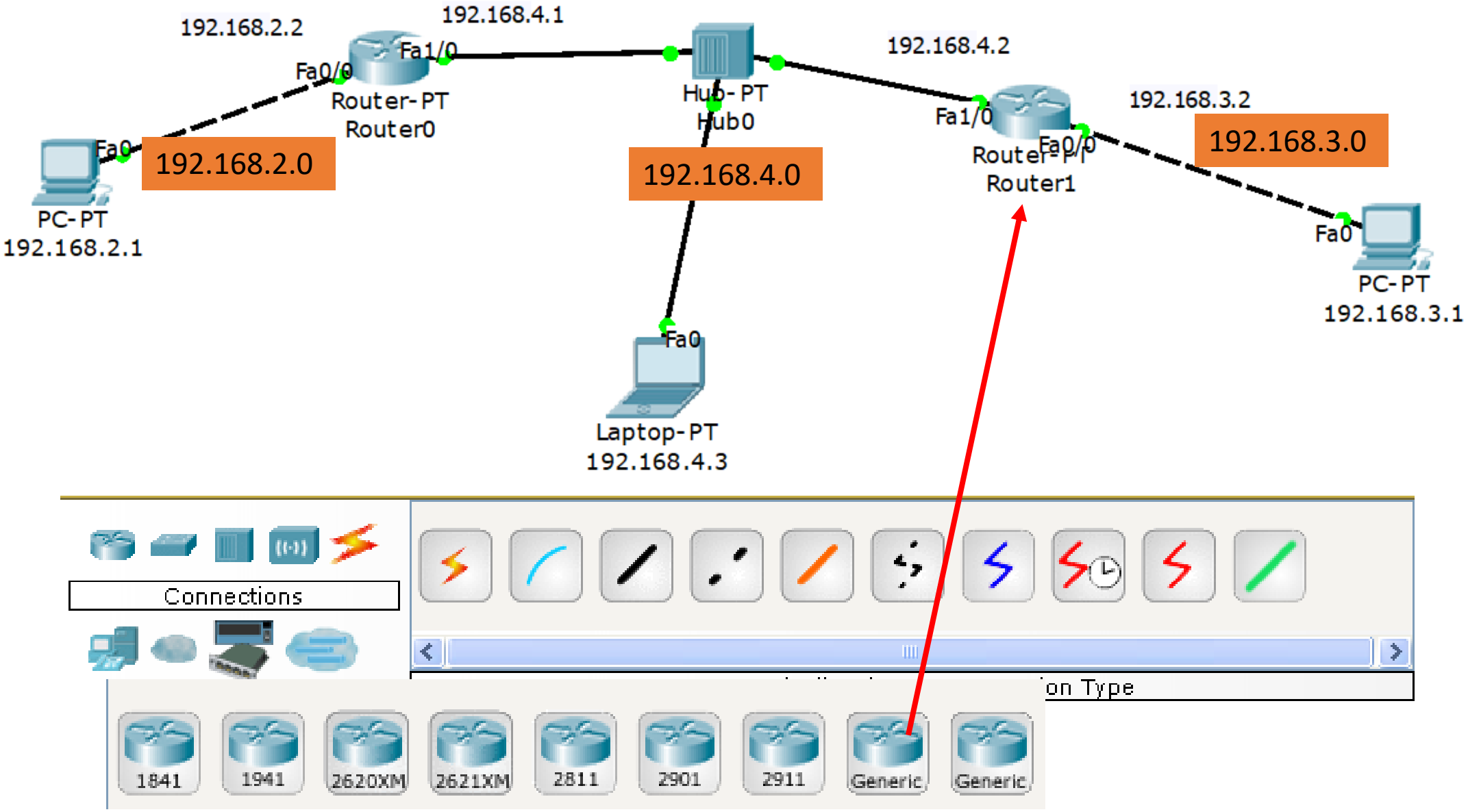


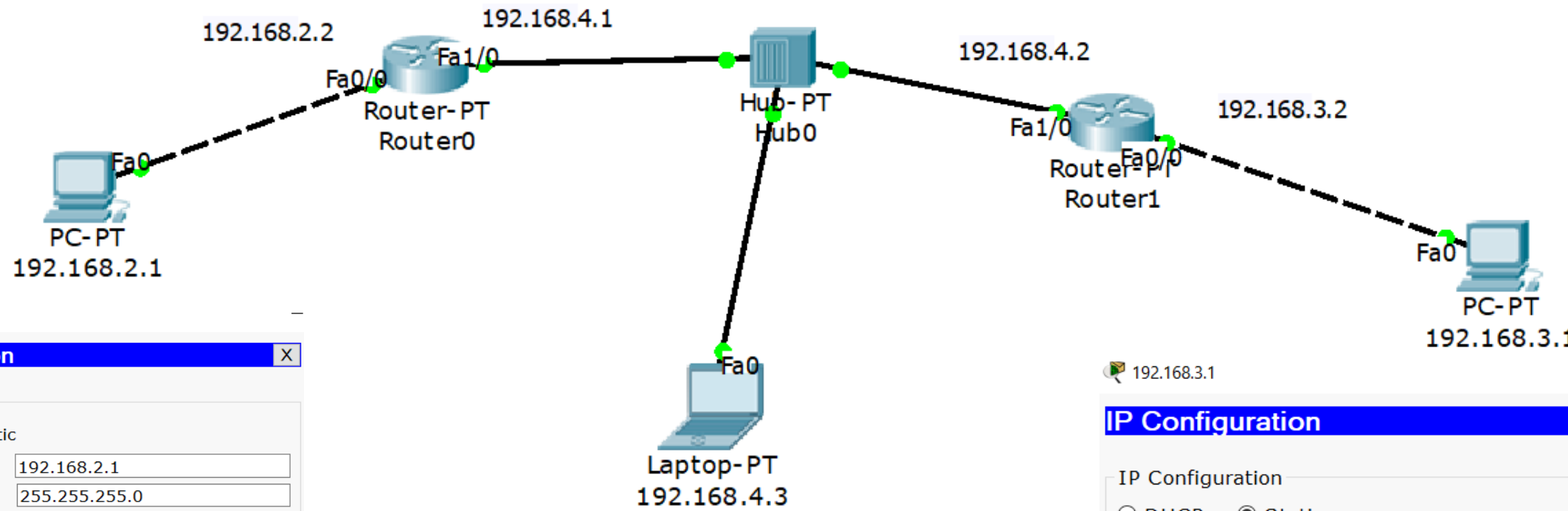
Verify using ping and ICMP packet simulation

IP Address	192.168.4.12
Subnet Mask	255.255.255.0
Default Gateway	192.168.4.1

The same network can be implemented using different router




192.168.2.2
192.168.4.1
Fa1/0
Fa0/0
Router-PT
Router0
Hub-PT
Hub0
192.168.4.2
Fa1/0
Router-PT
Router1
192.168.3.2
Fa0/0
192.168.3.0
Fa0
192.168.2.0
192.168.4.0
PC-PT
192.168.2.1
Fa0
PC-PT
192.168.3.1
Fa0
Laptop-PT
192.168.4.3
Connections
1841
1941
2620XM
2621XM
2811
2901
2911
Generic
Generic



192.168.2.1

IP Configuration

IP Configuration

DHCP Static

IP Address	192.168.2.1
Subnet Mask	255.255.255.0
Default Gateway	192.168.2.2
DNS Server	

192.168.4.3

IP Configuration

IP Configuration

DHCP Static

IP Address	192.168.4.3
Subnet Mask	255.255.255.0
Default Gateway	192.168.4.2
DNS Server	

192.168.3.1

IP Configuration

IP Configuration

DHCP Static

IP Address	192.168.3.1
Subnet Mask	255.255.255.0
Default Gateway	192.168.3.2
DNS Server	

Router0

Physical | Config | CLI

GLOBAL
Settings
Algorithm Settings
ROUTING
Static
RIP
INTERFACE
FastEthernet0/0
FastEthernet1/0
Serial2/0
Serial3/0
FastEthernet4/0
FastEthernet5/0

FastEthernet0/0

Port Status	On
Bandwidth	Auto
10 Mbps / 100 Mbps	100 Mbps
Duplex	Auto
Full Duplex / Half Duplex	Full Duplex
MAC Address	0060.3EA6.D630
IP Address	192.168.2.2
Subnet Mask	255.255.255.0
Tx Ring Limit	10

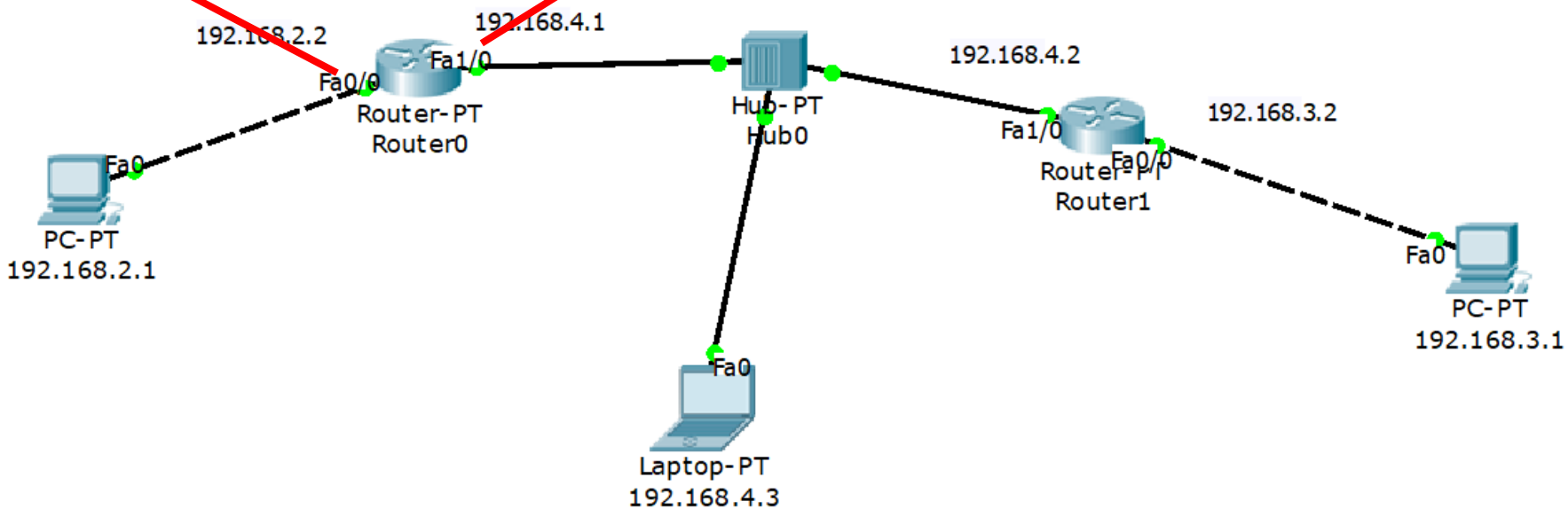
Router0

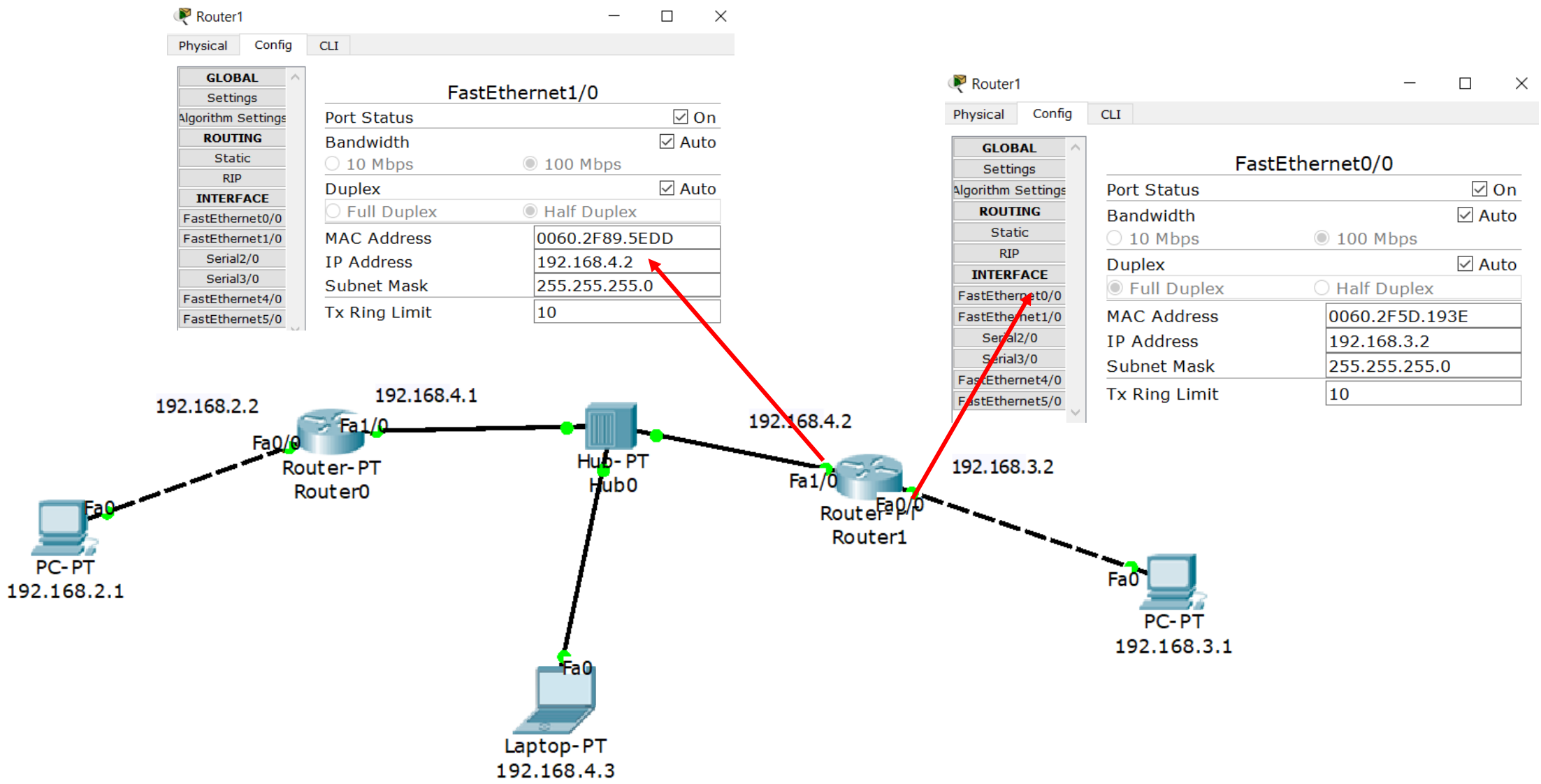
Physical | Config | CLI

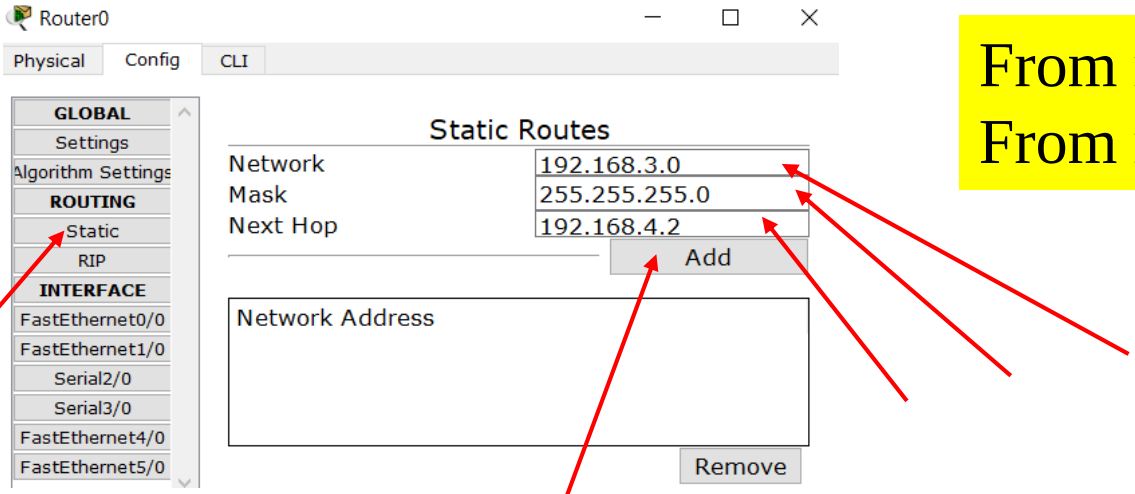
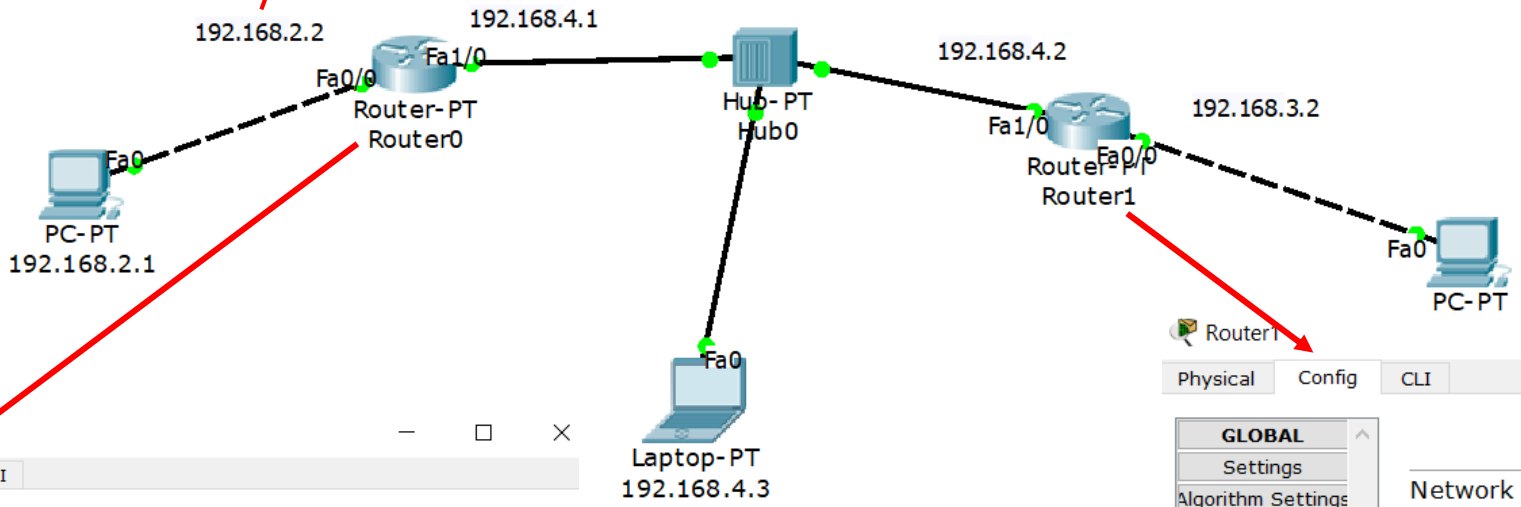
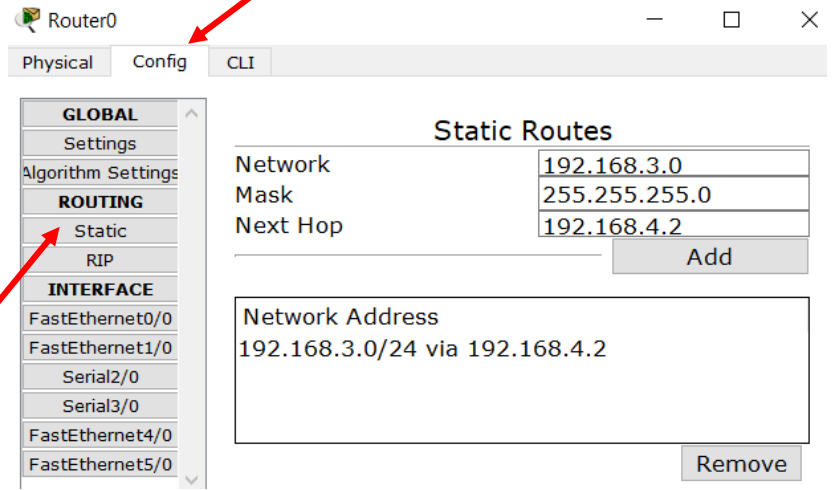
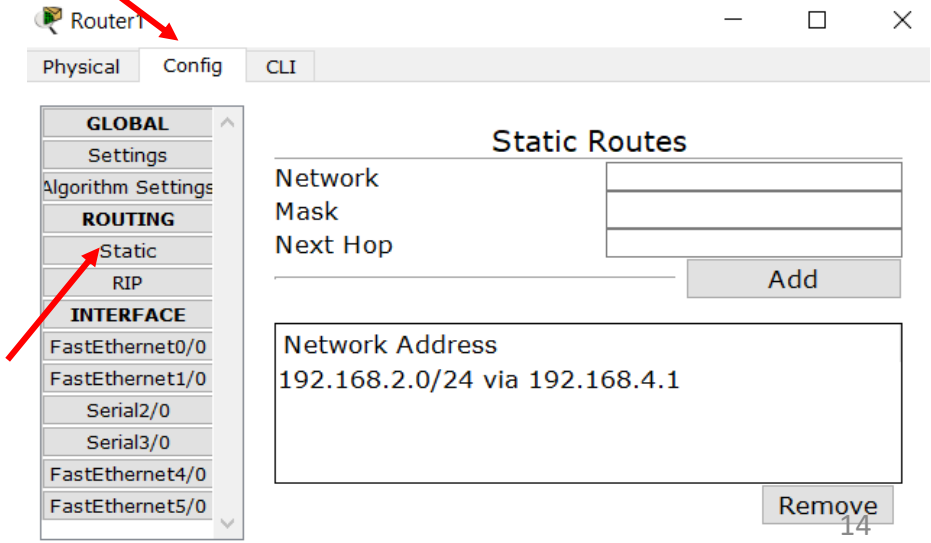
GLOBAL
Settings
Algorithm Settings
ROUTING
Static
RIP
INTERFACE
FastEthernet0/0
FastEthernet1/0
Serial2/0
Serial3/0
FastEthernet4/0
FastEthernet5/0

FastEthernet1/0

Port Status	On
Bandwidth	Auto
10 Mbps / 100 Mbps	100 Mbps
Duplex	Auto
Full Duplex / Half Duplex	Full Duplex
MAC Address	0001.965A.1070
IP Address	192.168.4.1
Subnet Mask	255.255.255.0
Tx Ring Limit	10




Router1
Physical
Config
CLI
GLOBAL
Settings
Algorithm Settings
ROUTING
Static
RIP
INTERFACE
FastEthernet0/0
FastEthernet1/0
Serial2/0
Serial3/0
FastEthernet4/0
FastEthernet5/0
FastEthernet1/0
Port Status
On
Bandwidth
Auto
10 Mbps
100 Mbps
Duplex
Auto
Full Duplex
Half Duplex
MAC Address
0060.2F89.5EDD
IP Address
192.168.4.2
Subnet Mask
255.255.255.0
Tx Ring Limit
10
Router1
Physical
Config
CLI
FastEthernet0/0
Port Status
On
Bandwidth
Auto
10 Mbps
100 Mbps
Duplex
Auto
Full Duplex
Half Duplex
MAC Address
0060.2F5D.193E
IP Address
192.168.3.2
Subnet Mask
255.255.255.0
Tx Ring Limit
10
192.168.2.2
192.168.4.1
Fa0/0
Fa1/0
Router-PT
Router0
Hub-PT
Hub0
192.168.4.2
Fa1/0
Fa0/0
Router-PT
Router1
192.168.3.2
Fa0
PC-PT
192.168.2.1
Fa0
Laptop-PT
192.168.4.3
Fa0
PC-PT
192.168.3.1

From network 192.168.2.0 to 192.168.3.0 via 192.168.4.2
From network 192.168.3.0 to 192.168.2.0 via 192.168.4.1

Next verify with ping or ICMP